

# Aviation News

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**The Aleutian Express Loads at Kodiak:** This striking photo released by Naval Air Transport Service dramatizes penetration of aviation to many outposts which before the war were cut off from the rest of the world, without air service. This new Douglas C-54 stands in the drizzle of Kodiak, Alaska, before starting a regular run to Adak, in the Aleutians.

## **CAB Applications Near 500 Mark**

A total of 282 companies file for new lines while 112 seek permission of board to amend present certificates.

## **Wage Increase Studied as Manpower Solution**

Local advertising and recruiting drives ease labor crisis in some firms; subcontracting brings temporary relief.

## **CAB Officials Praise Feeder Probe Data**

Seventy witnesses representing 40 companies provide material for study in developing U.S. policy on route allocation.

## **Boston Store Proposes Deliveries by Air**

Filene's Sons seeks approval of helicopter operations as other firms file applications with CAB for variety of services.

## **Brewster Probe May Affect Other Firms**

WPB reports on production efficiency studied by investigating group; inquiry may spread to additional companies.

## **Major Air Drive Mapped in Chungking Talks**

Mountbatten-Chiang meeting is postlude to Roosevelt-Churchill conference held in May; Stratemeyer emerges as liaison officer.



*"THEY TAKE YOU OUT—AND BRING YOU BACK"*

So writes an American pilot from the Southwest Pacific. This statement aptly expresses the finest tribute that can be paid the American combat planes. It is a reflection of the determined and continuous efforts of plane and accessory manufacturers alike to provide ever better performance, greater safety and more dependability. Reports of aerial combat in the various theatres of war show the definite superiority of American planes.

Vickers Hydraulic Equipment is used on the great majority of our country's combat planes because it helps them "take you out—and bring you back."

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## THE AVIATION NEWS

# Washington Observer

**LABOR UTILIZATION QUESTIONED**—There is a growing feeling in Congressional and other circles that the aircraft industry is wasting manpower. This despite statements of aircraft company heads and officials of assembling production with fewer workers in proportion. The aircraft companies have never claimed that their plants have perfect labor utilization, but they do contend that, considering all the circumstances, labor utilization is good and that it is constantly improving.

**TURNOVER INVOLVED**—Despite the stand of the aircraft companies, some members of Congress have received complaints from plant workers. One such involved inexperienced interviewees who have offended job applicants, placed them in jobs for which they had no aptitude and in other ways contributed to turnover, most serious of the manpower problem factors. The aircraft industry may be in for some unfavorable publicity unless they can counteract the feeling regarding labor utilization.

**WEST COAST LOAD**—There is some concern among West Coast industry executives that they may be placed in a most disadvantageous position when the European phase of the war ends. Some of these people see themselves called upon to carry a disproportionate production burden for the war against Japan while the middle-west and east convert to peacetime production. Several west coast companies are said to have purchased or taken options on outside plants in this connection. The situation has come to the attention of Pacific Coast Congressmen and there may be some action on this in Capitol Hill.

**WARREN VERSUS PATTERSON**—It's been several weeks since Whistler has been involved to a back exchange of words between high members of the Administration. Now we have Landis Warren, comptroller-general, and Robert P. Patterson, under-secretary of war, having words over Warren's charges of waste and inefficiency, aimed at the War Department. It has been one of those "you did—I didn't" things so far, but it may develop into something more unless a peacekeeping steps in.

**CLIP McNUTT'S POWERS**—There is a move in Congress to strip Paul V. McNutt, War Manpower Commissioner, of all authority over administration of Selective Service. A section was

quietly written into a pending bill which directs the President to delegate to the director of Selective Service all the authority he received under the original law. This would be Paul McNutt, who supervises Maj. Gen. Leslie B. Brehmer, Selective Service director. This is a good one to watch.

**SEVERSKY CHALLENGED**—There was an interesting letter to the editor in a recent issue of The New York Times. It was signed by Foster Haley, member of the Times' staff who recently returned after nearly two years with the Navy in the Pacific. Haley says in part: "Major de Seversky, who writes on war and air power, does the cause he seeks to serve on a tripartite when, in pleading the case of land-based aviation, he perpetuates the fiction that Army bombers won the Battle of Midway, denies the efficacy of our naval carriers in the Pacific and questions the ability of our warships to protect themselves against air attack." Seversky's three-weekly column appears in The Times, among other papers.

**NELSON RETURNS**—Nobody knows better than WPD Chairman Donald M. Nelson the necessity for keeping U. S. war production at peak and he comes back to the United States with more appreciation for his production plan after a tour of European battle fronts. The fact that

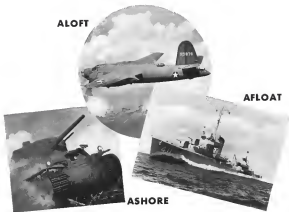


Donald Nelson views a damaged "Fortress."

Nelson was able to take the tour is evidence of the present smooth operation of WPD contacted with some months ago. Charles E. Wilson, executive vice-chairman, has been in charge during Nelson's absence. They are a good team.



ALIFT



ASHORE

## A CONTINENTAL DIAMOND product is in there slugging!

C-D makes hundreds of electrical and mechanical parts which are vital to the successful operation of radios, guns, engines, communication systems, and all electrically energized units in our fighting equipment afloat, ashore and aloft.

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10-14-16-18-20-22-24-26-28-30-32-34-36-38-40-42-44-46-48-50-52-54-56-58-60-62-64-66-68-70-72-74-76-78-80-82-84-86-88-90-92-94-96-98-100-102-104-106-108-110-112-114-116-118-120-122-124-126-128-130-132-134-136-138-140-142-144-146-148-150-152-154-156-158-160-162-164-166-168-170-172-174-176-178-180-182-184-186-188-190-192-194-196-198-200-202-204-206-208-210-212-214-216-218-220-222-224-226-228-230-232-234-236-238-240-242-244-246-248-250-252-254-256-258-260-262-264-266-268-270-272-274-276-278-280-282-284-286-288-290-292-294-296-298-300-302-304-306-308-310-312-314-316-318-320-322-324-326-328-330-332-334-336-338-340-342-344-346-348-350-352-354-356-358-360-362-364-366-368-370-372-374-376-378-380-382-384-386-388-390-392-394-396-398-400-402-404-406-408-410-412-414-416-418-420-422-424-426-428-430-432-434-436-438-440-442-444-446-448-450-452-454-456-458-460-462-464-466-468-470-472-474-476-478-480-482-484-486-488-490-492-494-496-498-500-502-504-506-508-510-512-514-516-518-520-522-524-526-528-530-532-534-536-538-540-542-544-546-548-550-552-554-556-558-560-562-564-566-568-570-572-574-576-578-580-582-584-586-588-590-592-594-596-598-600-602-604-606-608-610-612-614-616-618-620-622-624-626-628-630-632-634-636-638-640-642-644-646-648-650-652-654-656-658-660-662-664-666-668-670-672-674-676-678-680-682-684-686-688-690-692-694-696-698-700-702-704-706-708-710-712-714-716-718-720-722-724-726-728-730-732-734-736-738-740-742-744-746-748-750-752-754-756-758-760-762-764-766-768-770-772-774-776-778-780-782-784-786-788-790-792-794-796-798-800-802-804-806-808-810-812-814-816-818-820-822-824-826-828-830-832-834-836-838-840-842-844-846-848-850-852-854-856-858-860-862-864-866-868-870-872-874-876-878-880-882-884-886-888-890-892-894-896-898-900-902-904-906-908-910-912-914-916-918-920-922-924-926-928-930-932-934-936-938-940-942-944-946-948-950-952-954-956-958-960-962-964-966-968-970-972-974-976-978-980-982-984-986-988-990-992-994-996-998-1000-1002-1004-1006-1008-1010-1012-1014-1016-1018-1020-1022-1024-1026-1028-1030-1032-1034-1036-1038-1040-1042-1044-1046-1048-1050-1052-1054-1056-1058-1060-1062-1064-1066-1068-1070-1072-1074-1076-1078-1080-1082-1084-1086-1088-1090-1092-1094-1096-1098-1100-1102-1104-1106-1108-1110-1112-1114-1116-1118-1120-1122-1124-1126-1128-1130-1132-1134-1136-1138-1140-1142-1144-1146-1148-1150-1152-1154-1156-1158-1160-1162-1164-1166-1168-1170-1172-1174-1176-1178-1180-1182-1184-1186-1188-1190-1192-1194-1196-1198-1200-1202-1204-1206-1208-1210-1212-1214-1216-1218-1220-1222-1224-1226-1228-1230-1232-1234-1236-1238-1240-1242-1244-1246-1248-1250-1252-1254-1256-1258-1260-1262-1264-1266-1268-1270-1272-1274-1276-1278-1280-1282-1284-1286-1288-1290-1292-1294-1296-1298-1300-1302-1304-1306-1308-1310-1312-1314-1316-1318-1320-1322-1324-1326-1328-1330-1332-1334-1336-1338-1340-1342-1344-1346-1348-1350-1352-1354-1356-1358-1360-1362-1364-1366-1368-1370-1372-1374-1376-1378-1380-1382-1384-1386-1388-1390-1392-1394-1396-1398-1400-1402-1404-1406-1408-1410-1412-1414-1416-1418-1420-1422-1424-1426-1428-1430-1432-1434-1436-1438-1440-1442-1444-1446-1448-1450-1452-1454-1456-1458-1460-1462-1464-1466-1468-1470-1472-1474-1476-1478-1480-1482-1484-1486-1488-1490-1492-1494-1496-1498-1500-1502-1504-1506-1508-1510-1512-1514-1516-1518-1520-1522-1524-1526-1528-1530-1532-1534-1536-1538-1540-1542-1544-1546-1548-1550-1552-1554-1556-1558-1560-1562-1564-1566-1568-1570-1572-1574-1576-1578-1580-1582-1584-1586-1588-1590-1592-1594-1596-1598-1600-1602-1604-1606-1608-1610-1612-1614-1616-1618-1620-1622-1624-1626-1628-1630-1632-1634-1636-1638-1640-1642-1644-1646-1648-1650-1652-1654-1656-1658-1660-1662-1664-1666-1668-1670-1672-1674-1676-1678-1680-1682-1684-1686-1688-1690-1692-1694-1696-1698-1700-1702-1704-1706-1708-1710-1712-1714-1716-1718-1720-1722-1724-1726-1728-1730-1732-1734-1736-1738-1740-1742-1744-1746-1748-1750-1752-1754-1756-1758-1760-1762-1764-1766-1768-1770-1772-1774-1776-1778-1780-1782-1784-1786-1788-1790-1792-1794-1796-1798-1800-1802-1804-1806-1808-1810-1812-1814-1816-1818-1820-1822-1824-1826-1828-1830-1832-1834-1836-1838-1840-1842-1844-1846-1848-1850-1852-1854-1856-1858-1860-1862-1864-1866-1868-1870-1872-1874-1876-1878-1880-1882-1884-1886-1888-1890-1892-1894-1896-1898-1900-1902-1904-1906-1908-1910-1912-1914-1916-1918-1920-1922-1924-1926-1928-1930-1932-1934-1936-1938-1940-1942-1944-1946-1948-1950-1952-1954-1956-1958-1960-1962-1964-1966-1968-1970-1972-1974-1976-1978-1980-1982-1984-1986-1988-1990-1992-1994-1996-1998-2000-2002-2004-2006-2008-2010-2012-2014-2016-2018-2020-2022-2024-2026-2028-2030-2032-2034-2036-2038-2040-2042-2044-2046-2048-2050-2052-2054-2056-2058-2060-2062-2064-2066-2068-2070-2072-2074-2076-2078-2080-2082-2084-2086-2088-2090-2092-2094-2096-2098-2100-2102-2104-2106-2108-2110-2112-2114-2116-2118-2120-2122-2124-2126-2128-2130-2132-2134-2136-2138-2140-2142-2144-2146-2148-2150-2152-2154-2156-2158-2160-2162-2164-2166-2168-2170-2172-2174-2176-2178-2180-2182-2184-2186-2188-2190-2192-2194-2196-2198-2200-2202-2204-2206-2208-2210-2212-2214-2216-2218-2220-2222-2224-2226-2228-2230-2232-2234-2236-2238-2240-2242-2244-2246-2248-2250-2252-2254-2256-2258-2260-2262-2264-2266-2268-2270-2272-2274-2276-2278-2280-2282-2284-2286-2288-2290-2292-2294-2296-2298-2300-2302-2304-2306-2308-2310-2312-2314-2316-2318-2320-2322-2324-2326-2328-2330-2332-2334-2336-2338-2340-2342-2344-2346-2348-2350-2352-2354-2356-2358-2360-2362-2364-2366-2368-2370-2372-2374-2376-2378-2380-2382-2384-2386-2388-2390-2392-2394-2396-2398-2400-2402-2404-2406-2408-2410-2412-2414-2416-2418-2420-2422-2424-2426-2428-2430-2432-2434-2436-2438-2440-2442-2444-2446-2448-2450-2452-2454-2456-2458-2460-2462-2464-2466-2468-2470-2472-2474-2476-2478-2480-2482-2484-2486-2488-2490-2492-2494-2496-2498-2500-2502-2504-2506-2508-2510-2512-2514-2516-2518-2520-2522-2524-2526-2528-2530-2532-2534-2536-2538-2540-2542-2544-2546-2548-2550-2552-2554-2556-2558-2560-2562-2564-2566-2568-2570-2572-2574-2576-2578-2580-2582-2584-2586-2588-2590-2592-2594-2596-2598-2600-2602-2604-2606-2608-2610-2612-2614-2616-2618-2620-2622-2624-2626-2628-2630-2632-2634-2636-2638-2640-2642-2644-2646-2648-2650-2652-2654-2656-2658-2660-2662-2664-2666-2668-2670-2672-2674-2676-2678-2680-2682-2684-2686-2688-2690-2692-2694-2696-2698-2700-2702-2704-2706-2708-2710-2712-2714-2716-2718-2720-2722-2724-2726-2728-2730-2732-2734-2736-2738-2740-2742-2744-2746-2748-2750-2752-2754-2756-2758-2760-2762-2764-2766-2768-2770-2772-2774-2776-2778-2780-2782-2784-2786-2788-2790-2792-2794-2796-2798-2800-2802-2804-2806-2808-2810-2812-2814-2816-2818-2820-2822-2824-2826-2828-2830-2832-2834-2836-2838-2840-2842-2844-2846-2848-2850-2852-2854-2856-2858-2860-2862-2864-2866-2868-2870-2872-2874-2876-2878-2880-2882-2884-2886-2888-2890-2892-2894-2896-2898-2900-2902-2904-2906-2908-2910-2912-2914-2916-2918-2920-2922-2924-2926-2928-2930-2932-2934-2936-2938-2940-2942-2944-2946-2948-2950-2952-2954-2956-2958-2960-2962-2964-2966-2968-2970-2972-2974-2976-2978-2980-2982-2984-2986-2988-2990-2992-2994-2996-2998-3000-3002-3004-3006-3008-3010-3012-3014-3016-3018-3020-3022-3024-3026-3028-3030-3032-3034-3036-3038-3040-3042-3044-3046-3048-3050-3052-3054-3056-3058-3060-3062-3064-3066-3068-3070-3072-3074-3076-3078-3080-3082-3084-3086-3088-3090-3092-3094-3096-3098-3100-3102-3104-3106-3108-3110-3112-3114-3116-3118-3120-3122-3124-3126-3128-3130-3132-3134-3136-3138-3140-3142-3144-3146-3148-3150-3152-3154-3156-3158-3160-3162-3164-3166-3168-3170-3172-3174-3176-3178-3180-3182-3184-3186-3188-3190-3192-3194-3196-3198-3200-3202-3204-3206-3208-3210-3212-3214-3216-3218-3220-3222-3224-3226-3228-3230-3232-3234-3236-3238-3240-3242-3244-3246-3248-3250-3252-3254-3256-3258-3260-3262-3264-3266-3268-3270-3272-3274-3276-3278-3280-3282-3284-3286-3288-3290-3292-3294-3296-3298-3300-3302-3304-3306-3308-3310-3312-3314-3316-3318-3320-3322-3324-3326-3328-3330-3332-3334-3336-3338-3340-3342-3344-3346-3348-3350-3352-3354-3356-3358-3360-3362-3364-3366-3368-3370-3372-3374-3376-3378-3380-3382-3384-3386-3388-3390-3392-3394-3396-3398-3400-3402-3404-3406-3408-3410-3412-3414-3416-3418-3420-3422-3424-3426-3428-3430-3432-3434-3436-3438-3440-3442-3444-3446-3448-3450-3452-3454-3456-3458-3460-3462-3464-3466-3468-3470-3472-3474-3476-3478-3480-3482-3484-3486-3488-3490-3492-3494-3496-3498-3500-3502-3504-3506-3508-3510-3512-3514-3516-3518-3520-3522-3524-3526-3528-3530-3532-3534-3536-3538-3540-3542-3544-3546-3548-3550-3552-3554-3556-3558-3560-3562-3564-3566-3568-3570-3572-3574-3576-3578-3580-3582-3584-3586-3588-3590-3592-3594-3596-3598-3600-3602-3604-3606-3608-3610-3612-3614-3616-3618-3620-3622-3624-3626-3628-3630-3632-3634-3636-3638-3640-3642-3644-3646-3648-3650-3652-3654-3656-3658-3660-3662-3664-3666-3668-3670-3672-3674-3676-3678-3680-3682-3684-3686-3688-3690-3692-3694-3696-3698-3700-3702-3704-3706-3708-3710-3712-3714-3716-3718-3720-3722-3724-3726-3728-3730-3732-3734-3736-3738-3740-3742-3744-3746-3748-3750-3752-3754-3756-3758-3760-3762-3764-3766-3768-3770-3772-3774-3776-3778-3780-3782-3784-3786-3788-3790-3792-3794-3796-3798-3800-3802-3804-3806-3808-3810-3812-3814-3816-3818-3820-3822-3824-3826-3828-3830-3832-3834-3836-3838-3840-3842-3844-3846-3848-3850-3852-3854-3856-3858-3860-3862-3864-3866-3868-3870-3872-3874-3876-3878-3880-3882-3884-3886-3888-3890-3892-3894-3896-3898-3900-3902-3904-3906-3908-3910-3912-3914-3916-3918-3920-3922-3924-3926-3928-3930-3932-3934-3936-3938-3940-3942-3944-3946-3948-3950-3952-3954-3956-3958-3960-3962-3964-3966-3968-3970-3972-3974-3976-3978-3980-3982-3984-3986-3988-3990-3992-3994-3996-3998-4000-4002-4004-4006-4008-4010-4012-4014-4016-4018-4020-4022-4024-4026-4028-4030-4032-4034-4036-4038-4040-4042-4044-4046-4048-4050-4052-4054-4056-4058-4060-4062-4064-4066-4068-4070-4072-4074-4076-4078-4080-4082-4084-4086-4088-4090-4092-4094-4096-4098-4100-4102-4104-4106-4108-4110-4112-4114-4116-4118-4120-4122-4124-4126-4128-4130-4132-4134-4136-4138-4140-4142-4144-4146-4148-4150-4152-4154-4156-4158-4160-4162-4164-4166-4168-4170-4172-4174-4176-4178-4180-4182-4184-4186-4188-4190-4192-4194-4196-4198-4200-4202-4204-4206-4208-4210-4212-4214-4216-4218-4220-4222-4224-4226-4228-4230-4232-4234-4236-4238-4240-4242-4244-4246-4248-4250-4252-4254-4256-4258-4260-4262-4264-4266-4268-4270-4272-4274-4276-4278-4280-4282-4284-4286-4288-4290-4292-4294-4296-4298-4300-4302-4304-4306-4308-4310-4312-4314-4316-4318-4320-4322-4324-4326-4328-4330-4332-4334-4336-4338-4340-4342-4344-4346-4348-4350-4352-4354-4356-4358-4360-4362-4364-4366-4368-4370-4372-4374-4376-4378-4380-4382-4384-4386-4388-4390-4392-4394-4396-4398-4400-4402-4404-4406-4408-4410-4412-4414-4416-4418-4420-4422-4424-4426-4428-4430-4432-4434-4436-4438-4440-4442-4444-4446-4448-4450-4452-4454-4456-4458-4460-4462-4464-4466-4468-4470-4472-4474-4476-4478-4480-4482-4484-4486-4488-4490-4492-4494-4496-4498-4500-4502-4504-4506-4508-4510-4512-4514-4516-4518-4520-4522-4524-4526-4528-4530-4532-4534-4536-4538-4540-4542-4544-4546-4548-4550-4552-4554-4556-4558-4560-4562-4564-4566-4568-4570-4572-4574-4576-4578-4580-4582-4584-4586-4588-4590-4592-4594-4596-4598-4600-4602-4604-4606-4608-4610-4612-4614-4616-4618-4620-4622-4624-4626-4628-4630-4632-4634-4636-4638-4640-4642-4644-4646-4648-4650-4652-4654-4656-4658-4660-4662-4664-4666-4668-4670-4672-4674-4676-4678-4680-4682-4684-4686-4688-4690-4692-4694-4696-4698-4700-4702-4704-4706-4708-4710-4712-4714-4716-4718-4720-4722-4724-4726-4728-4730-4732-4734-4736-4738-4740-4742-4744-4746-4748-4750-4752-4754-4756-4758-4760-4762-4764-4766-4768-4770-4772-4774-4776-4778-4780-4782-4784-4786-4788-4790-4792-4794-4796-4798-4800-4802-4804-4806-4808-4810-4812-4814-4816-4818-4820-4822-4824-4826-4828-4830-4832-4834-4836-4838-4840-4842-4844-4846-4848-4850-4852-4854-4856-4858-4860-4862-4864-4866-4868-4870-4872-4874-4876-4878-4880-4882-4884-4886-4888-4890-4892-4894-4896-4898-4900-4902-4904-4906-4908-4910-4912-4914-4916-4918-4920-4922-4924-4926-4928-4930-4932-4934-4936-4938-4940-4942-4944-4946-4948-4950-4952-4954-4956-4958-4960-4962-4964-4966-4968-4970-4972-4974-4976-4978-4980-4982-4984-4986-4988-4990-4992-4994-4996-4998-5000-5002-5004-5006-5008-5010-5012-5014-5016-5018-502



#### BELLY TANKS CARRY PROPELLERS:

Researcher officers of the Northwest Army Air Service Command used belly tanks of Lockheed P-38's recently to transport specially needed propellers to the front where no other method was available. Capt W. A. Shuman, Dayton, demonstrates.

the pilot was somewhat of a problem.

■ **Full Set of Controls**—While Bell's was not the first modification of a fighter plane to meet instruction flight requirements, it was unusual in that the modification job is equipped with a second full set of controls as well as a simplified instrument panel which permits the trainee as well as the instructor to fly the ship.

Basic specification for the two-place version was that it should have the same flight characteristics as the combat model and be able to perform normal flight maneuvers.

■ **New Seat Installed**—To first space for the second crew in the plane, it was necessary to go forward and remove the 37 mm cannon, fuselage machine guns and cowling. The cowling cabin covering was extended to cover two seats instead of one, and a full set of controls as well as a simplified instrument panel were installed in the forward cockpit.

To maintain directional stability, the dorsal fin was enlarged, and a small auxiliary fin attached to the bottom of the fuselage.

■ **Interchangeable**—As built, the "P-38A," the "B" being added informally for "two-place," is interchangeable with the production Arrowhead, and any P-38 can be transformed into a trainer by installation of a special set of parts which can be made up and shipped anywhere. Conversely, if a trainer should be in

a combat zone, and an additional fighter was needed in an emergency, the front cockpit installation could be quickly removed, armament put back on, and the plane sent into battle.

Sounds simple, but it wasn't to Arthur L. Pernoff, service manager, Chief Project Engineer Frank M. Selway and Chief Test Pilot Robert M. Stanley who worked on the job with a special crew before they finally called in Maj. William Angas, of the Flying Safety Division, AAF.

#### Aerojet Corp. and Vega DPC Funds Raised

NLRB orders election at Bendix Corp. plant, WMC extends deadline to critical labor union.

In a move to reduce power work of small manufacturers, War Production Board has arranged to handle CMP allotments of steel, copper and aluminum on an annual rather than quarterly basis.

Airframe manufacturers and their subcontractors are affected by the new plan only to the extent that producers of DPC products used in aircraft must now apply to WPA for material orders for aluminum, steel and to Washington, and must apply on a yearly basis. When B product requirements are approved, allotments will be given directly from

the regional level, although a record of the transaction will be kept in Washington. Allotment returns follow the same pattern and must be made to regional or district offices.

■ **Bendix Plant Corp.** has increased its contract with Aerojet Engineering Corp., Pasadena, resulting in an over-all commitment of about \$500,000. The increase is for additional plant facilities in California at a cost of approximately \$200,000. The company is doing special aviation research work, as recently announced by AVIATION NEWS.

DPC's contract with Vega Aircraft Corp. also was increased to provide \$750,000 additional facilities at a California plant, resulting in an over-all commitment of about \$7,250,000.

■ **National Labor Relations Board** decreed that an election be held within 60 days of Oct. 3 for production and maintenance employees of Bendix Aviation, Ltd., North Hollywood, Calif., to vote for UAW-CIO, International Union of Machinery or for neither. NLRB's direction of election for the 82 Lunar Aircraft Corp., a division of St. Louis Car Co., was assented, at the request of the petitioner and intervenor that their names appear in the name of the local rather than the international. Production and maintenance employees will not vote for IAM or CIO.

■ **NLRB also decreed** that an election be held at Fisher Aircraft Division, General Motors Corp., Cleveland, within 30 days of Oct. 3 for production and maintenance painters, carpenters, electricians and production and maintenance employees will vote.

All Prices Instrument division, Bendix Aviation Corp., Baltimore and Towson, Md., the board decreed that a second election be held within 30 days of Oct. 12. Production and maintenance employees, including ground loaders and shipping clerks, will vote.

■ **NLRB adhered** to its original finding in its Oct. 3 decision and direction of election to Bendix Aviation, Ltd., North Hollywood, Calif., that trademarks are clerical employees and should be excluded from unit of maintenance and production employees, amended direction to include in the appropriate unit, North Highland Ave. plant employees; and substituted the IAM affiliation with AFL. Production and maintenance employees at Sherman Way, Lancaster and North Highland Ave. plants will now vote for UAW-CIO for IAM, or for neither.

#### WASPS Fly Targets For Anti-Aircraft

Tracking and other jobs added to ferrying work of weapon's group.

In an effort to expand fields where Women's Airforce Service Pilots can be of vital assistance to the Army Air Forces, Director Jacqueline Cochran has added tracking and target towing for Coast Artillery to their anti-ferrying jobs. But the post doesn't fire at their targets.

Twenty-two WASPs are now tracking and assisting in target towing at Camp Davis, N. C., and 130 more women will be placed within the next 60 days in some of the eleven low target squadrons in the U. S. Small Bessie planes such as the L-5 are flown by the WASPs.

#### Auto Plants Build 4 Billion in Planes

Industry reported producing over 11 million dollars worth daily.

Automotive Council for War Production reports the automobile industry is producing airplane products at the rate of \$11,000,000 a day and that its deliveries of planes, engines and accessories equipment to date total more than \$4,000,000,000.

The council said these products are made in most of the 1,000 plants in the automobile industry and that aircraft holds top position in the automobile industry's arms manufacturing product according to more than 60 percent of the industry's gross delivery rate of nearly \$100,000,000,000 a year.

■ **Two New Types**—The automotive industry is presently producing ready-to-fly assemblies of four different types of aircraft and is preparing to start work on two additional types. It is fabricating parts and subassemblies in various types of combat craft and producing many types of aircraft engines.

#### Navy Bares Secrets On Grumman Wildcat

Describes new fighter as one of world's best military aircraft.

Navy has disclosed secret information on the Grumman Wildcat, its newest fighter plane, describing the Wildcat as "one of the world's most effective military aircraft."

The Wildcat's speed is in the 400-mph class, its range is over 1,500 mi. and it has a ceiling of more than

35,000 ft. The Navy said its new fighter, designed and built under Pearl Harbor and first in action at Marcus Island "already has established itself during its short combat career as a great fighting plane."

■ **Range, Flight**—Its speed, the Navy says, compares favorably with that of any fighter in active service in any air force. Its range of more than 1,500 mi. makes the Wildcat, along with the Vought Corsair, one of the longest range fighters in active service. The Corsair also has a service ceiling of over 35,000 ft. Both the Wildcat and the Corsair are powered by 2,000 hp. Pratt & Whitney engines.

Navy described the Wildcat as a single-engine, single-seat, low wing, all metal, folding-wing monoplane, designed to operate either from carriers or land bases. It has retractable landing gears. Its wing span is 38 ft., its crest height, length 33 ft. 6 in. It has a three-blade, fixed, three-bladed propeller. Armament details are restricted.

#### Lockheed Steps Up Production of P-38's

Certs all other activities to speed output of Lightning.

All-out production of fighter planes to assure absolute air superiority protection for bombers is indicated by a new program under which virtually all facilities of Lockheed Aircraft Corp. will be devoted to output of P-38 Lightnings.

All production of Lockheed's military version of the Lodestar was said to have been halted and attention to high speed four-engine Convair fighters greatly curtailed to meet fighter craft demand.

■ **Plants Re-Tooled**— Lockheed

#### Big Plane Slowed

Army procurement officials in Los Angeles have ordered curtailment of Lockheed's plans to build the Constellation in production by next spring.

The order is in part all available momentary P-38 Lightning production. A small crew will be allowed to continue development work on two Constellation models.

Meanwhile, Howard Hughes in Washington refused to comment on rumors that he is seeking to buy production of the Constellation.



#### GOODYEAR WHEEL TEST:

This new device was developed over a two-year period by Goodyear Tire and Rubber Co. engineers for testing airplane wheels, tires and brakes, can measure loading loads up to 44,000 lb. and wheel speed up to 100,000 ft. per min. The device is 10,000 lb. in weight, which is considerably in excess of present weights. The machine utilizes a wheel ten feet in diameter and develops equivalent of a top speed of 200 mph. Air runway equivalent of 10,000,000 ft. is developed by the machine.

through plants that until recently were busy on subassemblies for other types are now fully re-tooled and producing P-38's. The Army Air Forces Materiel Command, western procurement district, believes current production, which is used, may be almost doubled by a new production system now being started.

If the new set-up meets with the success expected, it was considered likely it would be extended to other aircraft companies. When Lockheed was called on to step up output of P-38's, the Burbank plant already was working at capacity with little chance of accommodating increased personnel, even if available. Time and manpower shortage also precluded plant expansion.

■ **Subcontracting**—The a new move to lie in a schedule of subcontracting which eventually will make the Burbank plant more of a subassembly plant than heretofore. The Materiel Command and Lockheed officials made a study of plant capacity which could be formed out without interrupting flow of parts to the Burbank plant. Negotiations were started to spread production wherever feasible and possible.

## Airline Presidents Disagree on Outlook

Patterson, Moore were again entrepreneurs' expectations. Tripp says his focus is foreign trade.

Two airline presidents have warned against extravagance in consideration of aviation's future, while another called for immediate attention to foreign trade possibilities as a corollary of the coming air age.

"We must guard against emotional enthusiasm and emotional thinking," said W. A. Patterson, United Air Lines president, before the Dea Moore Chamber of Commerce.

Moore, James Waring—"Keep your hand in the steam but your feet on the ground," cautioned C. Redell Moore, president of Pennsylvania Central Airlines, in a speech at the National Association of Commercial Organization Secretaries in Pittsburgh.

"If we here in the United States, with our resources and productive capacity, increase our foreign trade so that it directly or indirectly employs two workers in five instead of one in five, we will have created 10,000,000 new jobs," declared Geo. T. Tripp, president of Pan American Airways, at a World Trade As-

sembly in New York. "It must be obvious to you all that the coming of the Air Age will inaugurate a new era in world trade."

Opposes Subsidies — Patterson denied the desirability of subsidies as one of the major accomplishments of the air transportation industry. "It has taken us 15 years to get away from subsidy," he said. "We certainly do not wish to return to it."

He discussed air travel costs, but asserted that, although they have dropped from around 10 cents a mile in 1927 to 31 cents in 1942, "we cannot visualize an ability to reduce costs to compete directly with cheaper forms of transportation for at least 10 or 15 years following this war." The immediate post-war years, he added, will see the airlines dependent on the fast-inflating money for their patronage, since "speed alone cannot be the factor of appeal to the mass market." Mistakes of over-expansion, Patterson said, must be guarded against.

Engineering Problems — Moore told the association that aviation probably will grow more slowly than many anticipate. He mentioned engineering problems in connection with the helicopter, costs of private plane ownership, and limitations on air transportation. Private planes after the war, he said, probably will

number about 33,000, or three times as many as in 1939. Domestic air service in the immediate post-war years, while its possibilities have been exaggerated, has an "almost unlimited" potential. On the assumption that the 3,500,000 passengers earned in 1941 by domestic airlines in their 350 planes will be tripled three times after the war, he estimated that the 10,000,000 passengers could be handled with 1,000 planes.

Opportunity — In his discussion on foreign trade, Tripp said "increased foreign trade in the air age under our present enterprise system is the best opportunity" to provide the 10,000,000 new jobs he said would be needed when the war is over. "We need to move and move quickly," he said. "And while informed Americans are becoming more foreign trade minded, the majority lack an appreciation of the importance of overseas shipping and communications. Future air policy must be determined by what is best for the country as a whole."

## Manpower Program Cuts Timm Contracts

Workers diverted from glider production to higher priority work.

Timm Aircraft Corp. of Los Angeles last week became the first aircraft prime contractor to suffer a contract cancellation under the War Relocation Authority's new West Coast plan to expand aircraft output.

Glider Canceled — Timm production of the Waco glider was stopped by Army Air Forces, Western Procurement Division, in direct order to production of parts for high priority planes such as the P-51.

Cancellation was approved by the West Coast Plant Production Emergency Committee on the basis of urgency of other aircraft production in the area and ability of eastern glider makers to maintain adequate Waco glider production. The action affects one Timm plant where workers will complete about 100 gliders now in process. Timm plants working on trimmers and components are unaffected.

Big Manpower Boost — Western production, heretofore on an eight-hour, six-day basis, now shows a boost of nearly 10,000 man-hours per week in the Los Angeles area alone at the ten-hour, five-day week is adopted. Games plans for the program are North American Aviation and Northrop Aircraft, which have experienced with this schedule for some weeks.



## NAVY'S NEWEST AND LARGEST AIRSHIP:

Substantial increases in cruising radius and bomb-carrying capacity as well as additional gun positions are incorporated in the Navy's newest non-rigid airship built by Goodyear Aircraft Corp. at Akron. The ship, the M-1, is larger than any non-rigid airship previously built and is half again as large as the K-ships now being used by the Navy in coastal patrol work. The M-1 is shown here on its first test flight.

or is Akron on a test flight. The car of the new ship is not a single cabin, as in present airships, but three connecting units fabricated by universal joints to allow freedom of motion in coordination with the flexible envelope above under which the weight is better distributed. The octopod, carrying two Pratt & Whitney Wasp engines, are attached to the midship mast.

## AAF's Independence Proclaimed by Army

War Dept. regulations declare equal status of land, air forces.

The principle of an independent air force has been acknowledged in recent War Department regulations — a outcome step toward a separate air force which indicates strength in this growing trend long advocated by all-out thinkers.

The development is of major significance and probably presages further developments along this line at a time considered appropriate by high ranking officials. The development does demand military rank in recognition of the place of air power in modern warfare, a place acknowledged by many but heretofore not recognized by regulation.

Status Defined — The new regulation appears to write into the War Department manual a definition of the status of the air force which confines battle experience. It de-

clares land and air power co-equal and interdependent, with neither being an auxiliary of the other. The regulation emphasizes that the greatest asset of air power is its inherent flexibility, and that this flexibility makes it possible to employ the whole weight of the available air power against selective areas in battle.

Control Centralized — "Control of available air power," the regulation states, "must be centralized and command must be exercised through the air force commander if his inherent flexibility and ability to deliver the decisive blow are to be fully exploited."

Therefore, the War Dept. regulation adds, "command of air and ground forces in a single theater of operations will be vested in the superior commander charged with the actual conduct of operations in the theater who will exercise command of the air forces through the air force commander and command of ground forces through the ground force commander."

Backed by McCarran — This accomplished, the regulations say positively that "the superior commander will not attach Army air forces to units of the ground forces under his command except when such ground force units are operating independently or are induced by distance or lack of communication." Senator Pat McCarran, Nevada, long an advocate of a separate air force, interpreted the move as preserving "new victories and continued victories in the present war, and it is a landmark as well in the development of aviation and in the advancement of military science."

## New Processes

Solvent, wire markers, tape printer and grease-proof paper developed.

Four new processes have been announced to the aviation industry by three leading companies. Magnus Chemical Co., Inc., of Glenwood, N. J., has developed a new solvent cleaner, Magnus No



## MR. PHILPOT'S "FLYING WHEEL"

Strange conglomeration of this age of Aeroplanes in this devoted aeronautical nation, piloted by the Evers Aircrafting Co., Inc., Baltimore. The agency, says Mr. Jack A. Philpott of New Orleans, has applied for patents on this "Flying Wheel," admittedly of revolutionary design. It can do everything helicopters do, and more so, because it has an engine on each of the alternate rotating wings. As the picture clearly shows "planned simplicity" will place "within the reach of everyone interested in air travel for business or pleasure as ultra-safe, rovers, just plain," the agency says





1932 Ryan Standard engine plane power generator motor

1934 Ryan Standard engine plane power generator motor

1936 Ryan Standard engine plane power generator motor

1938 Ryan Standard engine plane power generator motor

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1974 Ryan Standard engine plane power generator motor

1976 Ryan Standard engine plane power generator motor

1978 Ryan Standard engine plane power generator motor

1980 Ryan Standard engine plane power generator motor

## Proud Wings for the Ryan Manifest

Ryan Exhaust System control and convert to new practical use the intense heat of the rotating exhaust fire of thousands of aircraft engines horsepower. That Ryan both design and build well is attested by this fact: The airplanes on which Ryan Exhaust Systems are installed equipment comprise a list of America's most successful military and commercial types. Six of these are pictured above.

Engineering and research departments at Ryan are responsible for some of the most important technical developments in the exhaust system field. A procession of other improvements, refinements and new and ingenious solutions to exhaust

systems problems, are now coming from the Ryan development section.

Ryan designs and manufactures manifold, turbo-supercharger installations, heat transfer units for carburetion, cabin heating and wing anti-icing, and flame damping and other specialized exhaust system applications. Ryan's design and development groups now serve the Army, Navy, and all aircraft manufacturers producing for the armed services.

EXECUTIVES AND TECHNICIANS of Ryan holding joint defense and engine contracts can show a copy of the new national photographic illustration publication, "Ryan Exhaust Manifest" by forwarding printed or details to either address below.

# RYAN

Rely on Ryan to Build Well



RYAN BUILDING WELL: Ryan Building Well, a large industrial building with a sign that says 'RYAN BUILDING WELL'.



RYAN TRAINING WELL: Ryan Training Well, a large industrial building with a sign that says 'RYAN TRAINING WELL'.



RYAN PLANS WELL: Ryan Plans Well, a large industrial building with a sign that says 'RYAN PLANS WELL'.

RYAN ARCHITECTURAL COMPANY - MEMBER, AIRCRAFT MANUFACTURING COUNCIL, INC. GENERAL OFFICES: KENNESAW, GA. 30144 - EASTERN OFFICES: 430 LEXINGTON AVE., NEW YORK

## THE AIR WAR

### COMMENTARY

## Unpublicized Chungking Meeting Brews Major Asiatic Air Campaign

Discussions of Mountbatten, Chiang Kai-Shek and other high allied officers is postulated as Roosevelt-Churchill meetings in May, Statestayer emerging as liaison between air forces, Generalissimo, and Mountbatten.

Overshadowed by the world-shaking possibilities of the Moscow conference, the five-day series of talks in Chungking some days ago by Lord Mountbatten, Generalissimo Chiang Kai-Shek and high ranking Americans and British Air, ground and supply officers, including Gen. Brentnall, brewed exceedingly better medicine for the Nipponese war-lords. This is the "gutting down to brass tacks" meeting for which the Roosevelt-Churchill conferences in May prepared the way, these having been based on general staff conversations with Gen. Stilwell and Gen. Chennault, who had flown to Washington for the purpose.

Further result of this earlier conference was the decision to send one of America's ablest air officers, Maj. Gen. George E. Stratemeyer, chief of the Air Staff, to head up and coordinate the Air Forces in the Asiatic theater.

Quebec and Mountbatten—The next turn of the wheel brought the world spotlight to Quebec and the dramatic announcement that Lord Mount-

batten would be over-all Commander of Allied Forces in Southeastern Asia. The setup, as it is beginning to emerge, indicates Lord Mountbatten's relationship with the generalissimo, Gen. Stratemeyer being a connecting link for air activity in both theaters, a sphere in which the American effort will predominate. This goes around for inferred opinion that the American Gen. Stratemeyer will be Admiral Mountbatten's Air Chief, and that Brentnall will head up the ground forces, possibly Gen. Auchinleck, and the sea forces. The Southeast Asia Command would thus follow the highly successful Mediterranean pattern, with Gen. Mountbatten as Commander in Chief, and the British Chiefs of Staff, Alexander and Cunningham for Air, Ground and Sea. Mountbatten's Chief of Staff is a very able British General, Sir Henry Haysle Pownall, and his deputy is the American Maj. Gen. Albert C. Wedemeyer, one of Gen. Marshall's chief planning aides since 1941.

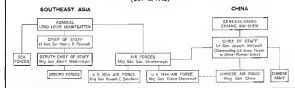
Two-Passenger Drive on Japan—Although not fully realized at the time, the Southeast Asia Command indicates a mighty power movement against Japan of which the right arm is General MacArthur's "Back to the Philippines" campaign via New Guinea—Arakan—Mandana and/or Timor—Celebes—Luzon. A glance at the map will reveal two ways in which Lord Mountbatten's forthcoming land, sea, air campaign will help China to become the left arm of the great power movement.

The most obvious is the air and land drive to clear the Japs out of central and upper Burma, and on air and sea assaults on Bangkok. The other way China could be helped would be the recapture of Singapore from a strongly built-up base in Ceylon, also necessary for the attack on Rangoon. From Singapore, Hong Kong could be recaptured and the long-standing blockade of China could be effectively lifted by means of a sea route compared to which military staples over a recaptured and subsequently improved Burma Road would seem negligible.

Importance of Burma—The world was so stunned by the unbelievably rapid Japanese campaign of the last three or four months of 1942 that the crucial importance of the loss of Burma was hardly realized at the time.

A wedge was driven between China and India, permitting an attack in either direction. In what now appears a major strategic error, the Nipponese turned to the south in an effort to isolate Australia as a main base for American counter-attack. Happier they short at Port Moresby and at Guadalcanal suggest that plan in the bud, and now as for as India is concerned, the shoe is on the other foot.

## ALLIED MILITARY ORGANIZATION IN ASIATIC THEATER (OCT. 15, 1943)



\* Gen. Brentnall is also working with the British Air Force, which is to be used in order to clear the Burma Road. (The 1943-44 campaign in U.S. Army 21st Air Force in China, Burma and India.)





#### CORPUS CHRISTI CADETS GET INSTRUCTIONS:

The Navy releases this photo of cadets gathered around the flight boards at Corpus Christi Training Center, waiting for instructions before starting out on the day's flight. Says rear No. 3 board near "Up and at 'em, boys Keep 'em flying." Cadettes scribbled on blackboard says "Don't get caught above clouds."

**Deflection in Burma**—What the Allies lost in three months in the spring of 1945 may require four or five times as long to recapture in 1945-46. A relief zone, or better still, a relief model, gives some indication of the tremendous difficulties of terrain. A glance at an ordinary map might give the impression that it would be relatively easy to march a strong army from Assam into Burma to drive out the Japs, and it is well known that both Indians and Chinese troops, well trained by British and American officers, are available for such a purpose. However, this approach leads over 8,000-ft. mountains into practically useless jungle country, and the supply and health problems are appalling. The newly built Lads road through the Assam jungle from India into northern Burma will help some. Akab will be the first important land objective, and this time the Allies are determined to get it. The sea approach, however, is more promising, and the first step would be the recapture of Port Blair in the Andaman Islands.

A strong air base at Port Blair would dominate the Bay of Bengal and protect "Triumph" operations against Bangkok and or Vietnam point on the Kya Peninsula, which connects the Malay States and Tan-

land. Capture of the Kya would drive an effective wedge between Singapore on one hand and Bangkok and Burma on the other, and cut off Japan from all supplies by sea through her land-based air action on the Andaman and Nicobar Islands on the west and Kya Peninsula on the east.

Thus is the way around the problem. However, the base for such operations would be Ceylon, more than 12,000 mi. from New York. So once again Gen. LaGuardia is telling an impatient American public not to expect overnight miracles.

**India: a Huge Air Base**—In the meantime, air activity is being stepped up. It is at least some satisfaction that from the very beginning of the war the Air Forces have been able to hit the enemy somewhere, somehow, almost every day, and only weather and lack of equipment and supplies have prevented even more frequent and powerful blows.

So while preparations are being made for full-scale combined operations, Gen. Davidson's Tenth Air Force and Air Chief Marshal Pearce's Royal Air Force in India, and Gen. Chennault's Fourteenth Air Force in China will still hammer away.

Air Chief Marshal Pearce, at a recent address in New Delhi, revealed that a large air force had been built

up in India. Although not as spectacular as the devastating precision blows against vital war industry targets in Europe, or as the heavy counter-Air Force blows at Wewak and Rabaul, the steady work of the RAAF and the Tenth Air Force over Burma, and the Fourteenth in China, has been successful in preventing the enemy from building up strong positions from which it would take years to drive them out.

NAVIGATOR

## Nelson Emerges As Manpower Chief

Donald M. Nelson, WPB chairman, emerges as a top man on manpower control in a new organizational setup.

Production agency committees and manpower priorities committees, established through the Beruch-Burns West Coast Manpower plan, have now been set up in eight areas in the country and are located at Portland, Akron, Detroit, Los Angeles, San Diego, San Francisco, Seattle, and Portland, Ore.



#### FLYING MEMORIALS:

Lockheed-Vega Aircraft has adopted a unique and dignified manner of remembering its men who have died for their country. Forty-nine of the 117,118 stars on the Lockheed Service Board have turned to gold. For each one of these, Lockheed-Vega sends a warplane down the assembly line bearing a winged gold star with the Latin "Remington" (I shall rise again), and the name of the former employee. Pictures show Mrs. Myrtle Blaine, mother and sister at Lockheed inspecting the plane dedicated to her son, Mary Llewellyn. Earl Thomas Blaine, former Lockheed employee.

## AIRCRAFT PRODUCTION

# Coast Plants Study Wage Increases As Solution to Labor Problem

Local advertising and recruiting campaigns have eased crisis in manpower in some plant companies; subcontracting brings temporary relief in some instances.

There are signs of easing, but not much, easing of the West Coast manpower problem where Southern California aircraft plants are considering whether an over-all wage increase might ease their headaches.

Neither the West Coast manpower or production nor full-page advertisements in the metropolitan newspapers has done too much to help, although there has been a small action in number of employees and the new program was said to have aided in some specific cases where plant priorities were established.

**Pay Increases Asked**—Aircraft plant unions in the stabilized Southern California area are now asking

for a wage increase of from 60 to 80 cents an hour in the metropolitan border of Consolidated Union, Douglas, Lockheed, Northrup, North American, Ryan and Vega have been working on the problem as have executives of company representatives.

For the week ended Oct. 16, for example, the companies hired 5,390 new employees and lost 4,630 for a net manpower gain of only 760. The average of wage increases for Southern California plants was raised almost as soon as the War Labor Board granted an increase to Boeing Aircraft to a maximum of 13 1/2 cents an hour.

**Labor Situation Eases**—Due to this and other factors, the critical manpower problem which has plagued Boeing has shown signs of easing with a report that nearly 2,500 additional employees have joined the roster since Sept. 1 and through Oct. 6, including recruitment at the Seattle and Renton plants of the company as well as in branch factories.

Of the total gain, 1,785 were added to the Seattle division, 588 to the Renton division and 368 to branch plants. More than 500 new Flying Fortress builders were recruited in other sections of the country by Boeing's out-of-state hiring teams.

**Subcontracting Aids**—Further aid has been given the Boeing manpower problem by additional subcontracting in the Seattle area. When the Boeing manpower problem first began recurring widespread attention last July, there was immediate need for 3,000 employees to overcome the existing shortage, plus a longer-range requirement for an additional 6,000 workers to staff completely the company's Seattle and Renton plants, enabling them to meet enlarged production schedules of the future and making a total need for 9,000 employees.

(Turn to page 25)



#### VEGA'S SUPER-ASSEMBLY LINE FOR "FLYING FORTRESSES":

Interior of Vega Aircraft Corp.'s main plant at Burbank, Calif., where four times as many Boeing B-17 bombers are being turned out as were built last January. Air shows show for the first time, Vega builds these planes under a plan all its own, which features instead of a single loop assembly line, three short final

assembly backed up by subcontracting. Construction is broken down into many small jobs, each with its own full complement of electrical and other installments. Many of these subcontractors are done in outside plants. Besides the B-17 assembly, Vega builds an equal number of Ventura PV-1 bombers for the Navy.

# Free Enterprise

## WHAT IS IT? HOW DOES IT WORK?

☆

One is a free-enterprise economy the chief motivating forces of which are the prospective rewards for effort and risk-taking. Its smooth operation depends first, on adequate incentives for risk-taking, innovation, and individual effort, and second, on sufficient competition to minimize the need for government regulation and to prevent artificially high prices or wages from being maintained in large segments of the economy. Trouble arises when these incentives and this competition are hampered with or removed.

America was founded by men who had the urge to better themselves and the courage to take a chance. These men spouted themselves in Europe and braved the unknown. They asked for free freedom. They knew that, to be free, they had to attain economic freedom. Their goal was an economic freedom which permits the private ownership of property, the free choice of jobs, and free entry into entrepreneurial pursuits. Their efforts, therefore, were directed toward individual opportunity with no limit on individual achievement. Their foresight and the endurance of those who followed them created the world's greatest industrial nation enjoying the highest standards of living.

We can take pride in the knowledge that our country has been the greatest single contributor to the world's physical assets even though we remember that an abundance of natural resources contributed materially to America's economic development. But the fact that our progress has been interrupted, again and again, by depression which resulted in enormous wastes of our human and material resources is sobering proof that our economic mechanism still is far from perfect.

Our production per man-hour has been increasing at the rate of 2.5% per year. Inexpensive machines and greater efficiency have more than tripled the output per hour of work since 1900. Looking to the future, this annual rate indicates that our production per hour of work will double in the course of the next 25 to 30 years. This means that we can have twice our present volume of goods and services per capita or an equivalent

level combination of more production and more leisure. In other words, we can further increase the living standards and further decrease the working hours of the American people by further intensifying our industrial efficiency.

This is no idle dream. It can be achieved, and it will be achieved, if only we maintain the essential features of our system of individual enterprise which also makes possible this utopian goal. Intensification of our efficiency, however, means that we can have full employment only if we expand enormously our production, and particularly our production of new goods. We can expand total production only if we have the markets and the demands for the vast output of goods and services made possible by our technological development. To attain them, we will need to venture into new markets, new inventions, and new methods. Such ventures involve risks, and risks will be taken only if there is sufficient prospect of reward.

Let us never lose sight of the fact that the essential features of free enterprise are the prospective rewards for risk-taking as well as for effort.

The evidence is clear that incentive methods of wage payments will boost production. Carefully devised systems of bonus payment with large differential inducements for superior performance have been powerful means of raising the standards of managerial accomplishment.

Free enterprise cannot operate effectively unless the wage and salary system offers greater rewards for greater effort. Neither can it operate effectively unless the prospects for profit are sufficient to encourage the employment of resources which otherwise would be kept idle.

Unless the prospects of profit are superior to the prospects of loss, new ventures will not be undertaken and going concerns will not expand or continue long in business. When the hope for profits wanes, employment and production slump, when that hope returns, employment and production recover.

Business initiative must be given every possible in-

ducement in order that maximum employment may be achieved through private enterprise. This involves the removal and avoidance of restrictions on business by government, by labor, and by business itself.

Competition is the lifeblood of the free enterprise system. Business and industry must rely upon efficiency rather than upon protection from competition for their survival.

These government controls which were made necessary during the war by the magnitude of government demands for goods should be lifted at the earliest possible moment. As soon as the danger of inflation has receded, price controls must be removed and profit margins again left free to be determined by market forces. The excess profits tax must be repealed and the burden of other taxes on business profits greatly reduced. Tax laws should be revised so as to permit adequate rewards for assuming risks. The strengthening of anti-trust laws and their vigorous enforcement, not indiscriminate prosecution, will be supported by all who truly want free enterprise. Such measures will strengthen the incentives to expand old businesses and to start new ventures.

Counts of unlimited monopoly power to labor unions which enable them, consciously or not, to sabotage the profit incentive in business must be withdrawn. Labor has certain legitimate rights and in order to preserve them and its freedom, labor must come to realize that its best interests lie in a well functioning, undisciplined competitive free enterprise economy.

There must be evolved in the minds of business, labor, and the public a recognition of the need for private business enterprise and a realization that policies which threaten it are harmful not only to businessmen but to workers and consumers as well. Unless we achieve this understanding and avoid needless deterrents to business expansion, we are likely to pay for our folly in the destruction of our free enterprise system.

We cannot tolerate conditions in which special interests grow in business, labor, agriculture, or politics previous free access to the market by would-be competitors. Such monopolizing of opportunities stifles progress and creates profits at wage rates based on artificial scarcity. In such cases government interference to open the market to all owners is clearly indicated. We must recognize the need for constructive policies by business, labor, and government which will insure the cooperation necessary for the successful operation of our economy.

Increased government regulation and control of business activities is not conducive to strengthening the vitality of private enterprise. Government ownership and operation of productive resources certainly is not to be condoned. The more government rules and regulates business, the less will be the incentive to assume risks and to exercise individual initiative. Government regulation of the detailed operation of industry inhibits progress, is prey to political pressures, and is subject to the human failings of its administration. Better for the

rough guidance and justice of vigorous, though somewhat imperfect, competition than the uncertainty of arbitrary regulation.

The greatest threats to our competitive system exist in legislated monopolies, such as the N.R.A. once created, such as the labor union and farm groups have recently achieved, such as businessmen themselves have sometimes sought. The power of labor monopolies to encroach on business profits will tend to interfere seriously with the needed flow of new investment. And when any group is strong enough to move the average level of costs as much as the labor groups and the farm groups are able to do, there is good reason to fear that, when we begin to approach high levels of employment and production in time of peace, these groups will induce a price-wage spiral which will waste money incomes on price increases instead of permitting them to draw unexploited resources into production. While the demands of labor for collective bargaining rights and the demands of farmers for protection against the rigors of depression have validity, there can be no reason for excessive grants of power and privilege which threaten to make our system of free enterprise unworkable.

Only in a complex economic structure. The functions which prices, income, savings, investments, and taxes play in this system are difficult to comprehend.

As I have said before: Thinking is hard work, and we will have to work hard if we are to develop business policies, labor policies, and government policies which will ensure full employment and the opportunity for consistent profit. Yet only through such policies can we guarantee that private enterprise will be the predominant source of jobs, income, and production.

Even more difficult than thinking, and more important, is the implementation of many policies that are in the interest of the free enterprise system. Not all measures will satisfy all people. Special interests will have to be subordinated to the total interests of the nation. Sacrifice and vision have been essential to the winning of the war. They will be no less essential to the winning of the peace.

If we can gain recognition of the crucial role of incentives for enterprise, if we stand squarely for competition and against protection or privilege for special interests, and if we bend our efforts to find satisfactory ways and means to prevent large-scale unemployment, we can have the full benefits which only a free enterprise system can produce—an industrial progress, in its proved standards of living, and in the preservation of our democratic ways of life.

*James H. McPherson, Jr.*

President, McGraw-Hill Publishing Company, Inc.

While employment grows, registered since Sept. 1, indicate that Boeing's immediate labor shortage in Seattle plants has now eased somewhat, continued employment over a period of time will be required for the longer-range buildup and for replacements of normal turnover. It is planned to increase immediately the rate of employment at the Renton plant.

**✓ Differ on Wage Increases—**Some Southern California executives who are opposed to wage increases are said to feel that manpower gains from a wage increase might prove only temporary and require some further hypodermis of wage increases. Several other executives are said to believe that proposed increases might solve their problem.

In the meantime the Los Angeles Chamber of Commerce, through a citizens' committee, is ringing doorbells in an attempt to ferret out new workers for the aircraft plants. The results of such campaigns previously has been fairly good, and most aircraft men were skeptical of the results.

## Wilson, McNutt Draw Into Dallas Probe

WPB official to visit Texas plant to get first-hand data on lagging.

Operation of North American Aviation's plant at Dallas, Tex., particularly in regard to manpower utilization, has come under scrutiny of the Truman Senate Investigating Committee with developing ramifications which have drawn into the picture, Charles E. Wilson, WPB executive vice-chairman and Paul W. McNutt, chairman of the War Manpower Commission.

Testimony taken by a Truman subcommittee at Dallas from approximately 350 witnesses, including J. H. Kerkelinger, head of North American, has been turned over to Wilson for study, which will be followed by a trip to Dallas to enable Wilson to examine the production situation at first hand.

✓ **Truman Calls McNutt—**At the same time, Senator Truman, of Wis-

consin, chairman of the war investigating committee, has called McNutt to appear before the committee and explain War Manpower Commission's handling of the manpower problem at the plant.

Senator Truman disclosed that 'Mr. Wilson has informed the Truman Committee that in his opinion the Dallas plant can and must be operated more efficiently and that he will go to Dallas and study the production situation thoroughly—introducing promptly such remedial action as is necessary to better utilize labor and achieve greater production efficiency.'

✓ **Check on Progress—**The Senator took pains to urge all employees of North American to stay on the job and cooperate with the investigations Wilson may make. He said, too, that the Truman Committee expected the War Department to cooperate fully with Wilson. The committee, he added, would check to make certain that progress along these lines is made.

'North American Aviation has made a great contribution to the war effort in developing and producing the Mustang and the Mitchell bomber, two of our finest planes,' said Senator Truman. 'The North American plant at Dallas is only one of a number of plants in the aircraft industry that is not producing what we are entitled to expect. We cannot permit manpower to be wasted. Hoarding of manpower must stop.'

✓ **At the Bottom of Barrel—**The Senator did not elaborate on this statement, except to point out that his committee a year ago reported the necessity of utilizing manpower efficiency, saying that today we are at the bottom of the manpower barrel and that 'the situation in Dallas, Texas, illustrates the extent to which manpower is still being wasted.'

In this connection he was referring to the action of the War Manpower Commission in declaring Dallas a critical labor area.

'This was done,' said Truman, 'because of the supposed additional future labor needs of the North American plant. That action does not increase the labor supply. It only prevents labor from being used for other purposes, however necessary, until the requests of the North American plant have been met.'

✓ **Cites Labor Demands—**Life and records of the War Manpower Commission show 67 percent of the total demand for labor during the four months after August was for the North American plant and that the

supply of labor would be adequate except for the demands of the North American plant.

'Mr. Wilson has informed the committee,' Truman said, 'that in his opinion the North American plant at Dallas cannot profitably employ more men, except for replacement, until it has increased the efficiency of its operations.'

## Hamilton Standard "Prop" Output Spurts

Up 2,400 percent since 1939, United Aircraft reports.

Production of Hamilton Standard Propellers has increased more than 24 times since September, 1939, when they turned out 1,666,191 16 aircraft propellers. Present output is with less than seven times the former manpower and less than five times the 1939 factory space.

✓ **Turns Out 76%—**With its increase, Hamilton is now producing more than 76 percent of all American warfare propellers and is represented on more than 50 types of Army and Navy planes.



### TANK OF PLASTIC BOARD:

Wide panel used in "pounce board," such as used in the aircraft de-icer fluid tank, is forecast by U.S. Rubber Co. The board is also the principal material used to support bullet-resistant test tanks because of its light weight, strength and ability to withstand gunfire at a wide range of temperatures without shattering. When penetrated by the board, it breaks clean. The weight of aluminum, it can be bent, cut and formed, stands excessive vibration, and is not affected by gasoline, oil, acids, alcohol, and other solvents.



### WRIGHT FIELD WIND TUNNEL:

Wind velocities of more than 450 mph are attained in this 20-ft wind tunnel at Wright Field, Army-Air Forces experimental center at Dayton. A 48,000 hp electric motor, one of the largest in the world, turns 40-ft fans to keep up the gale. In the throat of the tunnel cars be tested full-scale engine nacelles, and airplane parts or models with wingspan up to 15 ft.

## Joint Board Formed For Renegotiation

For authority in hands of single price adjustment group.

While a special House Ways and Means subcommittee considered proposed changes in the renegotiation law, a move was made by which authority now exercised by individual agencies in the renegotiation of war contracts will be vested hereafter in a Joint Price Adjustment Board.

Establishment of the board, announced by the War, Navy and

Treasury, Maritime Commission and Reconstruction Finance Corp., was a recommendation on which the subcommittee had agreed.

✓ **Formal Procedure—**The new set-up provides for formal procedure in place of informal procedure which has been followed by individual price adjustment boards and should simplify methods which war contractors must follow. At the same time, it maintains the relationship which has existed among the various boards on such matters as adoption and publication of joint statements of purpose, principles, policies and interpretations.

There is no indication of general



### FLEETWINGS BUILDS HANGAR ON WHEELS:

The portable hanger has been constructed by Fleetwing Division of Keweenaw, Inc., to solve several immediate problems and to allow it sometime in the future to be rolled on its wheels down a track to the site of a new airport nearby, or to make way for a permanent plant now. Framework is steel, with corrugated sheet steel roofing. Glassed dividers can be rolled up or down, depending on weather. Most Keweenaw near the temperature floor, steel chock-up and motor tools go on perpendicular of weather, made employees undisturbed by motor roar and fumes, and all with a minimum of



priority construction materials. Photographs show general view of hangar and close-up of one of the eight-wheel sets.

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<p>STYLE 200 STRAIGHT SIDE SHIP BOX</p> <p>A straight side ship box with four handles each end. Designed for easy use when stacking. Boxes are not required.</p>	<p>Style 200 - 6' x 8' 1/2" 11 sq. ft. 3.40 Each</p> <p>Style 200 - 6' x 10' 1/2" 14 sq. ft. 4.40 Each</p> <p>Style 200 - 6' x 12' 1/2" 17 sq. ft. 5.40 Each</p> <p>Volume E&amp;E Shipping, Packing—Any Quantity!</p> <p>Quality—Delivered, Packed, or Piled</p>

### AMERICAN METAL WORKS, INC.

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agreement on new amendments now under discussion by the subcommittee. It was considered possible that they might be worked into form by consideration of the Full Ways and Means Committee, now working, unsuccessfully, with new tax laws.

**Effect on Profit Studies**—Of particular interest to the aircraft industry in the negotiating their price adjustment officials take into account the effect of recapitalization on profits after taxes. The present policy, which has been protested by industry leaders, means recapitalization secures profits after taxes on the ground that a contractor's final cost should be determined by taxes and not by prior adjustments.

An effort is being made to make the effects of recapitalization more uniform, which may be partly solved, at least, by establishment of the new Joint Board.

**Exception**—Those working on the amendments are also discussing a recapitalization exemption for all contracts for standard products which would apply to thousands of com-

ponent parts which go into finished war materials. War contracting agencies have expressed themselves as opposed to this procedure.

The possibility that tax legislation may be held up has led to a strong feeling among some members of Congress that any changes in the recapitalization laws should be handled as a separate measure.

**Membership**—The personnel of the new joint board is Joseph M. Dodge, chairman of the War Department Price Adjustment Board, chairman, Kenneth H. Backus, chairman of the Navy Price Adjustment Board, vice-chairman, Thomas M. Woodward, chairman of the Maritime Commission Price Adjustment Board, who is also representing the War Shipping Administration; Price Adjustment Board; Capt. Harry C. Mault, Jr., chairman of the Treasury Department Price Adjustment Board; Charles T. Fisher, chairman of the Reconstruction Finance Corp. Price Adjustment Board; and Carmen G. Blough, War Production Board representative.



#### CORONADO UNDER CAMOUFLAGE:

Rarely photographed are the intricate camouflage developments around our aircraft plants. The Navy has released this view of the Camouflaged-Valley plant at San Diego, where women war workers eat lunch in the shade of chicken-wire camouflage covering a four-engine Coronado patrol bomber. The number of employees in this plant is greater than the entire prewar population of San Diego.

## Gwinn-Stone Formed

Wichita company to specialize in fabrication of propellers.

Formation of Gwinn-Stone, Inc., a Kansas corporation, has been announced, the firm being an outgrowth of Stone Berry Aircraft Propellers, of Wichita, Kas.

Specializing in fabrication of propellers and test cells, for which the company is equipped, Gwinn-Stone has established its plant in Wichita. The new corporation recently purchased the remaining stock and equipment, including trade rights, of Aircraft Products Corp. of Chicago, retaining to the Stone family the trade rights and designs on the name "Supreme."

## Navy Forms Air Unit In Incentive Division

Designed to speed fighting spirit of workers employed on aircraft.

Navy has established an Aeronautics Section in its Industrial Incentive Division, headed by Rear Admiral Clark H. Woodward. Purpose is to pick up the fighting spirit of workers—including those in management—in plants assigned wholly or partly to Naval aircraft production.

Cassander S. J. Singer, executive officer to Admiral Woodward, organized the Incentive Division, and Lt. M. H. Merryfield is in charge of the aeronautics section. These officers intend to drive their suggestion program from the main aircraft plants upstream to the forgings, workers in the hot and built branches.

**Honors Factions**—They will not concern themselves with production problems as such but with the human factors. Chief among these will be reports to workers telling just what part their products played at the front. Serial numbers of wings, engines, tires, guns, life rafts, machine kits, copper wire, instruments, down to valves and roller keys, will be traced back from planes in combat to the workbenches and production lines of their origin.

**Navy's Incentive Division**—Comparable to Army's Industrial Services Division, the division is headed by Col. Ralph P. Cook, which assigns incentive men temporarily to aircraft plants. Army's division was started nearly a year ago. "R" awards are issued and renewed by these divisions.

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Yours of satisfactory service is the American Wire and Cable Co. plants and other large manufacturers of wire and cable.

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## TWO COMPANIES LAUNCH "COMMANDO" PROGRAM

Curtiss-Wright plants in Buffalo, St. Louis, and Louisville, and Higgins Aircraft, Inc., at New Orleans, are starting mass production of Curtiss Commando trans-

ports like this. With a wingspan of 285 ft., approximately that of the B-17, the Commando is the largest two-engine transport in the world.

## Volume Production Is Begun on C-46

Curtiss-Wright announcement indicates tooling plan is completed.

Announcement by Curtiss-Wright that it is starting volume production of the C-46 Commando at its Buffalo, St. Louis and Louisville, Ky., plants and at Higgins Aircraft at New Orleans goes back to a day last August when the War Department cancelled contracts for the wooden Curtiss C-24 Corsair, which refused to be met of its bids.

The C-76 was to have been built by the Higgins New Orleans and

Curtiss Louisville plants, both of which were tooling up for production. Difficulties during the experimental period and delays with the experimental model, the War Department said, established that the plane would be more expensive and less efficient than those currently being manufactured from metal.

**Re-Tooling**—Since early re-tooling was then in order, but Burdette B. Wright, Curtiss-Wright vice-president, now claims that the schedules call for a total of eleven months for any other transport type.

Douglas tops all producers of heavy two-engine transports with its variants of the old DC-3 work-

horse, the C-47, C-53 and C-49. Cessna's production is up substantially on a light two-engine type and Cessna have been turned out consistently even before the new plants came in.

**Commando**—The Commando has a cargo capacity of 2,555 cu. ft. Its wing span is 146 ft. and it measures 34 ft. 4 in. from nose to tail and is 34 ft. 9 in. high. It weighs 27,990 lb. empty. The main cargo section is 43 ft. long, has a maximum width of 8 ft. 10 in. and a maximum height of 8 ft. 8 in. There are two smaller belly compartments. Two 2,200 hp. engines give the Commando a speed of more than 290 mph in level.

Curtiss-Wright and Higgins will build complete airplanes at prime contractors. The Higgins plant, in addition, will supply other wing parts for the planes produced at Buffalo. The Curtiss-Wright plant at Louisville will make other wing parts for the St. Louis plant.

**C-46 Expansion**—Wright announced that a special executive committee has been named to insure fullest cooperation in carrying out the new C-46 expansion program. Chairman of the committee is Col. Orel R. Cook of the production division, Military Command, AAF, at Wright Field.

Committee members include John J. Lee, manager of manufacturing development for the Curtiss-Wright airplane division with R. G. Miller, Cessna's coordinator as alternate and George A. Allward, chief aeronautical engineer for the Higgins Co. with F. O. Higgins, vice-president in charge of production, as alternate.



**Commando on the Line**—This Buffalo plant scene shows Curtiss C-76 transports in assembly. When planes in the line at the right reach a certain stage they are transferred to the center line, and finally to the line at the left where they are completed.

## PERSONNEL

James S. Lincoln will do special research for Northwest Airlines at St. Paul. He has been manager of the Industrial Department, Minneapolis civic and commerce association, and is vice-chairman and a director of the American Industrial Development Council.



Reg. Gen. Louis E. Woods, USMC, has been appointed director of Marine Corps Aviation, replacing Maj. Gen. Ray Geiger, now on duty in the field.



General Woods was formerly assistant director of Marine Corps Aviation and commanded all aviation units based on Guadalcanal for a month and a half during the late fall of 1942. During that time, his force sank 22 Japanese surface craft and destroyed 49 planes. For his action, General Woods received the Distinguished Service Medal. He also has the Expeditionary Medal for service in Haiti in 1934-5, the Harbin Order of Honor and Merit with rank of Chevalier.

Frank T. Tully, for the past year and a half in the press division, Office of Censorship, has been appointed director of public relations of the Healey Process Corp. Tully spent twelve years in the editorial and advertising staffs of the Clinton Co., where he served as managing editor and editor-in-chief, editor of Automobile Trade Journal, as well as on the staffs of Motor Age and Automobile and Aviation Industries. He also worked with Radio, Williams & Morrow, handling public relations for General Motors Corp. and Bendix Automotive Products Corp.

At Wright Field, Col. G. D. Day has been made representative of Hamilton Standard Propellers division of United Aircraft, replacing Samuel F. Crisp, who has been made materials manager of the propeller division at that Hartford, Conn. Day has been chief engineer at Hamilton Propellers for the past two years, formerly was with United Aircraft as project engineer of the Hamilton Standard plant and in the company's test engineering department. Crisp, a senior Chapter 8 member, has been at Wright Field for the

past two years and previously represented the company on the West Coast and as assistant sales manager at the Hamilton Standard division.

William V. Keen has been appointed assistant director of post-war planning for Northwest Airlines. Keen was for 34 yrs. in the Hedberg Mail branch of the Boston Post Office, where he initiated the making and dispatch of the first air mail schedules for New England.

S. Ralph Cohen, associate editor of National Aeronautics, was formerly in charge of the RAA Aviation Branch Club's monthly meeting in Washington. He recently joined the staff of the magazine after years of newspaper experience in New Jersey.

Albert W. Chavon, for several years on the public relations staff of the Aeronautical Chamber of Commerce, and more recently, manager of the information department, has joined Goodrich Aircraft Corp. to serve on the staff of Harry E. Hyde, vice-president and general manager.



## CHILEAN AIR CHIEF VISITS RANGER

Chief of Chilean Air Force, Lt. Gen. Manuel Tovar, inspected Ranger Aircraft Engines' plant at Farmingdale, N. Y. Shown beside a Ranger amphibious, in-line inverted air-cooled model which powers the Cornell trainer are, from left, A. T. Gregory, Ranger chief engineer; Gen. Tovar, R. M. Lewis, assistant general manager of Ranger, and Maj. Gen. Oscar Hernandez, chief of staff for aviation in Chile.

One of the few women who can boast of a 17-year career in aviation, Miss Black, has been elected an assistant secretary of Transcontinental & Western Air, which she joined 12 yrs. ago. She was formerly with the Aeronautical Chamber of Commerce.



Col. Edwin W. Hawkins, chief of the production research section, Metropolitan Command, Dayton, has been appointed administrator of the Aircraft Section, being Chief of the Aircraft Research Center (AIRC) Office, succeeding Col. E. M. Fowles. That unit, under WFB, has charge of scheduling materials and critical components needed for production of military aircraft, for the entire aircraft industry. Col. Hawkins holds a senior pilot's rating and is a two-time member of the Civilian Pilot Club. He has been at Wright Field since 1939. He holds the Distinguished Flying Cross for rescuing three stranded fliers at sea.





#### BENDIX ENGINEERS WHO PERFECTED NEW COMPASS:

Here are the men who perfected the new gyro flux gate compass to meet government specifications submitted three years ago, calling for an instrument that would operate reliably under all conditions and in close proximity to the magnetic poles. From left, center, is A. A. Stuart, who developed the flux gate. On his left is Don W. Smith and to his right, J. F. Emerson, in charge of design. Left to right, in the rear, are Charles Glynn, vice-president in charge of engineering; L. A. Hyland, executive engineer; Paul Hume, gyro specialist; W. A. Buechel, engineering director of Bendix-Planar Division, Bendigo; and V. R. Kimball, engineer.

Lee Swigart, district traffic manager in the New York area for TWA, has been promoted to Eastern Regional Traffic Manager for the airline. He succeeds William F. McVick, recently named system traffic superintendent at Kansas City, Missouri.

Harry Bennett, formerly with WPA Instructional Division in charge of aircraft production, received investigation and facilities, has joined the National



#### TWA DIRECTORS MEET:

Gilbert Scribner, Chicago business man and real estate broker, was introduced as a new director at TWA's recent directors meeting. Left to right are Vincent P. Conroy, vice-president of traffic and director; C. E. McCallum, Chicago regional traffic manager; Carl Rieve, Kansas City, assistant secretary; John Lockhart, Kansas City, secretary and treasurer; George Spater, Kansas City, attorney; E. Lee Talbot, executive vice-president and director; Mr. Scribner; Jack Freya, president-director; Sidney Meisner, St.

Louis, director; Jack Franklin, engineering vice-president; Fred Pastorek, Chicago regional operations superintendent; L. Col. Robert Taylor, Dayton, director; LaMette T. Cobb, Northbrook, Ill., director; and W. H. Cobb of Northbrook, Northbrook Aircraft Co., a guest of his brother, LaMette. Absent directors were Gen. T. B. Wilcox, chairman of board, chief of transportation for MacArthur; Powell Crossley, Jr., Cincinnati; John Collins, Kansas City, operations vice-president; and Ralph Elder, Pittsburgh.

Col. Charles Young, western division manager of Pan American Airways in San Francisco, has been transferred to the New York office. L. G. Reynolds has been appointed acting western division manager.

Mid-Continent Airlines has retained John W. Cross of Washington, D. C., as its general counsel, following resignation of John S. Wyman.

Continental S. Gross, Vega president, recently was appointed vice-president and general manager of the Lockheed Co. and L. Martin Bush, Vega manager of Air Transport, was brought back to Lockheed in the same capacity. Both releases John H. Brennan from that post to become general superintendent of outside plants, and is succeeded as works manager at Vega by George H. Proctor, assistant works manager, who is succeeded, in turn by W. G. Bellmore, former superintendent of fabrication and subassembly at Vega. Another transfer from Vega to Lockheed is that of Morris McElroy, who becomes special assistant to Robert E. Gross, president, in charge of investigation. All three transfers are with an intended concentration on output of the P-38.

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## TRANSPORT

### Officials of CAB Praise Data Presented at Feeder Investigation

Almost 700 witnesses representing 40 companies provide material for consideration in development of route allocation policy.

By BARBARA FREDERICK

The local-feeder-pickup investigation before the Civil Aeronautics Board which came to a close in Washington last week, exceeded all expectations of its probable value, as the opinion of CAB officials. These sources declared the testimony had provided a wealth of information which would guide the board in appraising individual applications.

The study brought forth specific information not only of applicant's plans and plans for this type of service, but factual data on traffic potentials, operating requirements, equipment, personnel, schedules, safety regulations and economic conditions which gave a clearer picture of the whole problem.

40 Firms Represented—Almost 700 witnesses, representing more than 40 companies, whose testimony filled 1,736 pages of transcript, ranged from representatives of current air and surface carriers, fixed base operators and flying schools to state Chambers of Commerce, professors, statisticians, engineers and "other interested parties."

There was considerable agreement on types of routes to be set up. These fell more or less into two categories: those centering around a trading area and those feeding into trunk lines. Differences of opinion as to who should operate the local airlines were strongly expressed, however. Feeder lines prodded themselves as willing and able to set up the service, prospective, fixed-base and flying school operators made a strong plea for local and independent operation. All parties in this group agreed that surface carriers should not be permitted to enter the field.

Real, Bus Arguments—Surface carriers, on the other hand, presented opposite testimony to show that the public can best be served by the extension to air transport of

their mode of bus and rail lines.

Feeding out that evidence were size excluded from motor transportation and that they saw operation some of the "best" bus companies, Thurman W. Van Meter, professor of transportation at Columbia University for the past 15 years, and surface carriers should not be excluded from the air just because they were surface carriers.

Avoids Exclusion—Appearing in behalf of the Burlington Transportation Co., the Atlantic, Topical, Martin F. Hawley, the Chicago, Milwaukee, St. Paul & Pacific, and seven bus subsidiaries in various railroad, Dr. Van Meter said such arbitrary exclusion "might interfere with establishment of a genuinely 'national' transportation system and

might conceivably interfere with the proper development of civil aviation itself."

The opinion that the airplane must be regarded as furnishing a form of transportation supplementary to surface carriers was expressed by Hugh Knowlton, of Eastern Air Lines. He presented statistics which he said do not encourage the belief that the demand for air transportation between nearby towns and cities of small size exists to any important degree.

Break on Hurdles—Knowlton stated further that his company does not consider the helicopter or autogiro offer bright possibilities for economical payload capacities.

Smaller communities within 55 miles of either side should be permitted to render trunk lines, Knowlton said. Raymond J. Jan, president of Coastal Airlines, suggested that "limited-franchise operators" would give service to a large proportion of smaller cities and their franchises should be granted as a competitive basis. He further declared certificates should not be granted to routes that will not be self-supporting. This he believes cannot be achieved without relatively heavy passenger load obtainable from heavily populated terminals or intermediate points.

CAB-Planned Routes Urged—Raymond E. Cole, of International Airways, division of Atlantic Gulf



#### GREYHOUND AIR BUS MODEL EXHIBITED:

Orville Casner, Vice-President of Greyhound Corp., poses to location of one of the motors on the side of a proposed air bus, designed for Greyhound by Raymond Loosy, who consulted upon following on engineering problems. This model was shown to the CAB during pre-hearing conferences on applications for local-feeder-pickup air service. Greyhound proposes to run air buses on routes paralleling and integrated with their present motor bus operations.

& West Indies Steamship Co., said CAB should lay out routes for local service which it considers feasible, and allow prospective operators to apply for particular routes.

Final views were Martin Varlet, CAA's economic consultant. From a study of realmed and unrealized po-

tentials of air traffic based on September, 1940, in the northeastern quarter of the United States, he came to the conclusion that an increase of 25 percent of passengers carried could have been effected if adequate air service had been provided.

Central States Airline Corp., which CAB applied for routes between Chicago and Madison, Wis., with layovers at Milwaukee, Green Bay, Oshkosh and Wausau, is carrying passengers and mail. It also has scheduled service on the multi-engine craft. The company is also operating scheduled services in Mid-Continent Airlines and Eastern Airlines. The company is also operating scheduled services in the multi-engine craft. The company is also operating scheduled services in the multi-engine craft.

Three routes from San Francisco to Chicago, Los Angeles and New York, and two routes from Denver to St. Paul and Chicago, were applied for by Western Air Lines, Inc., which, through American Corp., laid out a new route through Portland, Ore., Seattle, Wash., and San Francisco. The company also asked for a local service between 2000 Island and San Francisco. The company is also operating scheduled services in the multi-engine craft.

Albuquerque Trucking Co., Albuquerque, N.M., and the Air Lines, Albuquerque, N.M., are operating scheduled services in the multi-engine craft. The company is also operating scheduled services in the multi-engine craft. The company is also operating scheduled services in the multi-engine craft.

Other applications filed with CAB included one from Mountain Airline Co., which, through the Air Lines, laid out a new route through Denver, Colo., Salt Lake City, Utah, and Las Vegas, Nev. It also applied for routes from Denver to Salt Lake City, Utah, and Las Vegas, Nev. It also applied for routes from Denver to Salt Lake City, Utah, and Las Vegas, Nev.

## Boston Department Store Asks Air Deliveries in Trade Area

Filene's Sons seeks approval of helicopter flights as other companies file applications with CAB for varied services.

First department store in the country to file the application with the Civil Aeronautics Board for helicopter service from its roof to the probable limits of its trading area is Wm. Filene's Sons, of Boston, proposes in many modern merchandise markets. Filene's is operating last week for six months radiating from Boston to most of the leading cities of New England states except Connecticut, to transport persons and property.

Surface Carriers—Five new applications were filed by surface carriers from various parts of the country. Florida Motor Lines Corp., Jacksonville, Fla., sought authority to engage in scheduled helicopter operations carrying passengers, mail, baggage and light express on 19 routes in Florida which would directly parallel their present bus operations of 2,541 route miles.

From the northwest, an application for six routes was filed by Washington Motor Coach Co., Seattle, to coordinate air operations with its bus service now.

Continental—In commenting on two applications filed by Continental Air Lines, Terrell C. Drankow, president, said that "since the inception in 1949, Continental has adhered to a policy of regional service, and subsequent expansion in our route structure serves only to emphasize our faith in that policy."

He prefers to leave transcontinental and international routes in the hands of larger airlines, he said, and called attention to Continental's "foreign" position as "the only one of the domestic airlines which has not already manifested an intention to operate outside the continental limits of the U.S., or which does not presently fly outside these limits." A John Estess—Continental filed for extension of its routes (25 and 33) to emphasize operations from

Denver to Los Angeles via Grand Junction, Colo., Cedar City, Utah, and Las Vegas, Nev. It also applied for routes from Denver to Salt Lake City, Utah, and Las Vegas, Nev. It also applied for routes from Denver to Salt Lake City, Utah, and Las Vegas, Nev.

Another air carrier seeking extension of routes was TWA, which asked for an increase in routes to Los Angeles, San Francisco and Honolulu, and

An application from Air America, Inc., Chicago, which asked for an increase in routes to Los Angeles, San Francisco, and Honolulu, and

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## Route Applications Nearing 500 Mark

382 file for new lines while 112 ask amendments to existing.

Applications pending before Civil Aeronautics Board are rapidly nearing 500. Last week the figure was 490, and more have come in since.

By far the greatest group is for new routes. There are 242 of these applications. Proposed amendments to existing certificates number 112. Most non-scheduled bus operators who were operating when the Civil Aeronautics Act became effective and hence have applied for "grandfather" certificates, although they are now operating under a blanket operating order, have filed 39 applications. There are 4 foreign applicants for permits, 14 for mail routes, 2 for passenger routes, 10 in connection with interlocking relationships, and 33 miscellaneous.

Applications for Amendment No. 1000 include 92 for domestic routes with conventional equipment, 38 domestic with helicopters

43 local and feeder with conventional equipment, 21 pickup domestic, 13 non-scheduled domestic, 40 American flag foreign, 8 American flag overseas, and 6 Alaska. Requests for amendments cover 15 for domestic for additional stops and extensions, 9 American flag for additional stops and extensions, 5 Alaska, 3 pickup, 4 domestic additional mail, 6 Alaska additional mail, and 8 others domestic to combine routes, etc.

## House Delays Action on Lea Measure

House action on the Lea Bill to amend the Civil Aeronautics Act has been delayed and may not be debated before the week of November 4 and possibly later.

Opponents and proponents were taking advantage of the interval to marshal their forces for the fight, in which both parties promise to be the focus of intense public opinion. Federal control of the Airways, and surface carrier participation in air operation.

Majority and minority views have been expressed by members of the House Interstate and Commerce committee, with the majority group introducing a bill of its own, expected to be offered as a substitute for the Lea Measure when the matter reaches the floor.

## Forecasts Highlight Institute's Conference

Transport meeting in Washington here studies and government officials' views on developments.

Present developments and the post-war future were the themes of papers presented last week at the annual air transport meeting of the Institute of the Aeronautical Sciences in Washington.

William Littlewood, engineering vice-president of American Airlines, discussed airline use of modified planes from basic models now in military and commercial transport. Early tests are made in this connection. The main line of development after the war ends before the air transport industry can expect to receive planes additional to those they now have, except for a few from their former fleets, he said.

Bardeen, President of the Bureau of Aeronautics, discussed future airway and ground facilities. William A. M. Gordon, special aviation assistant to the Secretary



## INSTITUTE STUDIES AIR TRANSPORT PROBLEMS:

Air transport problems were discussed by air transport leaders and government officials in Washington last week at a meeting of the Institute of the Aeronautical Sciences. Among those discussing the program for the one-day session were, left to right, Maj. Lester D. Gardner, chairman of the Institute Council, Dr. W. L. Bracken, Institute president, and Grover Loening, WPA consultant on aircraft, who was chairman of the afternoon session.

of Commerce, estimated that air carrier movements will increase from eight to ten million a year by 1960, with 20 million passenger mileage. Local service, he said, will keep about 2,000 planes busy.

Loening described Gliders—Grove's Landing, aircraft consultant to WPA, in predicting that conventional glider pickup programs will be the conventional and economical that pointed out that glider trunks would be true savings, covering local service on a through-airline schedule. He believed, however, that no more than three gliders will be drawn by one plane, and foreseen specially designed towing craft. Engineering, Loening predicted, probably will provide a 4,500-lb. gross weight glider that will carry a 4,000-lb. cargo with shorter tow lines and the tow unit in the glider rather than the plane. As advantages he cited versatility, cost reduction, lower landing time, shorter runway and lower maintenance rates by virtue of distribution of risk. Lack of vibration, he expects, will make gliders a popular air vehicle for the

coming to about 200,000, and the flying of about 750 million plane miles a year, which is more than present annual passenger truck mileage. Local service, he said, will keep about 2,000 planes busy.

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## PASSENGER "SERVICE":

This uniformed passenger is being lashed aboard a Naval Air Transport or Marine's heavily business service, and commercial airlines laid from an such methods. But NATS is now operating about \$3,000 net of various routes.





## Aerial Juncy

Intestate Air Transport division is expected to announce the beginning of testable operations by Air Transport Corp. of Richmond on shuttle flights between Richmond and Norfolk, via Lynchburg.

Apparently, it was said, no law in Virginia required the issuance of a certificate of convenience and necessity from any state agency having charge of such matters, the only requirements being that the company file an annual report with the state corporation commission on all its stock and personal property owned by the firm. The temporary aid is reported operating without CAB approval.

## Trippe Calls for National Air Policy

Foreign and domestic developments focused new attention last week on the problem of this country's participation in post-war international air transport.

In London it was disclosed that Lord Beaverbrook and other British officials probably will come to the United States to compare their discussions of international aviation problems.

► **Trippe Urges Immediate Policy:** In New York, Jack T. Trippe, president of Pan American Airways, called for an immediate national policy with respect to this phase of an development.

Addressing PAA's families theme of a single international American airline, Trippe said, "We share among the leading nations have an official policy to guide our overseas air transport effort in the air age."

► **Problem:** While he declared the problem is too big for government consideration of the position of any one airline or group of airlines, he said the question was whether 16 or 15 separate American airlines shall continue to compete with each other and with foreign air monopolies, or shall we have one strong American international airline, strong enough to compete on even terms with the great foreign flag air transport monopolies—eventually government-owned and controlled, not by any one aviation interest, but by all American transportation interests able to contribute under an organizational plan approved by the Government.

## FINANCIAL

## Aviation Firm Officials Continue Sale of Air Stocks, SEC Reports

Latest summary shows decline in activity, with trend away from airline shares and toward aircraft equities.

By ROGER WILCO

Trading in securities by aviation officials declined during August, according to the Securities and Exchange Commission.

The new trades made disclose that, for the most part, aircraft shares were purchased while airline equities were sold by officials. This action in the securities market indicates that the trend of liquidation in this group—prevalent for many months—has finally been reversed. However, the volume of activity and the character of issues involved was of little import, so that reports for subsequent 30-day periods are contained before any definite conclusion can be drawn.

► **Daily Days Republic:** Significant was the purchase of 2,693 shares of Republic Aviation by John J. Daily, director. This brought his total holdings to 35,514 shares and is a continuation of purchases made in previous months. Alfred M. Marshall, newly elected president, showed his confidence by selling 300 shares to bring his total ownership to 1,600.

► **Tom A. Morgan:** bought 100 shares of Sperry, making a total of 745 held. David G. Flint acquired 100 shares of Consolidated Vertec, increasing his holdings to 300. In Flint also was revealed as owning 4,364 common.

► **Seller Transactions:**—Three officials of Selk Air Corp. acquired small blocks of preferred and common in that company. On the selling side, S. M. Parrish continued to liquidate his holdings in Fairchild Aviation, selling 693 shares and retaining 52,090 directly and 55,686 through Mills Land Corp. Harry E. Collins, an officer of B-1A Aircraft, sold 160 shares of that company, 600 remainder.

► **Western Air Lines Sold:**—Of some interest was the persistent selling of Western Air Lines' shares by officials. During July, 1943, Stanley W. Guthrie, director, sold 689 shares,

leaving 900. In two previous months, other shares were liquidated. Also, as revealed in August, for Sept. 30, other Western officials were reported as heavy sellers in previous periods.

John Trippe continued his sales by disposing of 2,698 shares of American Airways in August, reducing his holdings to 11,248. Trades created by Mr. Trippe continued to hold 10,000 shares. Other Pan American officials also were on the selling side. J. M. Blake, officer, sold 180, leaving 1,446. E. M. Fairchild, director, disposed of 310 shares, retaining 12,008. J. S. Woodbridge, officer, was left with 1,390 shares after making a gift of 100 shares.

► **Transic Sold Airlines:**—Selling in Pan American sales from other sources as well. Various investment trusts continue to run from aviation securities. For the third quarter ended Sept. 30, General American Investors sold its remaining holdings of 6,606 shares of Pan American. Also, Lehman Corp. disposed of 3,730 shares of the same carrier and 4,500 of United Air Lines. Incomplete summaries show other trusts on the selling side as well.

## Moody's Sees Clouded Air Stocks Outlook

Survey reports excellent prospects over long term period, however.

Reviewing "Present and Prospects of War Industries," a recent issue of Moody's Stock Survey takes a dismal view of the immediate prospects for aircraft equities.

In this crucial season, virtually all war-related industries are regarded as to their immediate outlook in the post-war period. While a few kind words are said for many of these groups, none is forthcoming for the aircrafts.

► **Long Term Prospects:**—In its short

review of the plane builders Moody's asserts: "Aircraft manufacturing has excellent long term prospects and the industry will be much larger in the post-war period than it was in pre-war times. But the outlook over the next several years, especially during the period of transition from war to peacetime activity, is so clouded that we doubt if public enthusiasm for these securities will be maintained until we are much closer to the time when post-war problems affecting the industry become better defined."

We believe this group of stocks lacks attraction. . . . Later on these stocks will be as doubtful as ever, real progress but we do not believe that they are in that position now."

► **May Have Been Dismissed:**—While the views of this investment service are generally well regarded, many observers maintain that it is because of this pessimism and well accepted fear for the immediate post-war outlook for the aircraft industry that prices of airplane shares are now selling at low levels. In other words, the market may have discounted this factor already in a large measure.

In fact, there are other analytical services and reports of a few investment firms advocating purchase of selected aircraft securities (Aeronautics—Oct. 4, 1943). All this variance in investment views is reaffirmation of the fact that all shades of opinion make up the market and only time can prove the accuracy of any prognostication.

## Northrop Sales Gain But Profits Shrink

Business up 112 percent; income cut from \$735 to share to \$3.12.

Northrop Aircraft, Inc., reports for the fiscal year ending July 31 net sales of \$66,794,644—a 112 percent gain over the \$32,903,762 for 1942.

Net profit declined from \$3,044,741 or \$7.90 a share for the previous year to \$1,249,335 or \$3.12 a share. ► **Cash Position Improved:**—During the last fiscal year Northrop was able, however, to wipe out 1942 liabilities that exceeded that year's current assets by \$97,813 and went up with a net working capital of \$508,840.

Stockholders were told that Northrop's recently expanded plant at Hawthorne, Calif., is in full production of a new Army plane "the which we have substantial orders."

and that "under the direction of John K. Northrop, president and chief of design, enough projects have been laid out for approximately 10 years of continued research, design and manufacturing."

## Republic Calls Stock

100,000 shares of 20 preferred to be retired Oct. 30 at \$10.

Republic Aviation Corp. will retire 100,000 shares of second preferred at \$10 a share Oct. 30, leaving 50,000 shares of the issue outstanding. The company retired \$3,000 shares July 1.

Originally 200,000 shares of second preferred stock were issued to Paul Moore, a director of the company in connection with expansion of facilities due to be scheduled. The company has \$52,697 shares of common stock outstanding, of which Moore owns about 18 percent.

## Henrywell Reports

Mississippi firm's six months' earnings hit \$1,625,000, with 1943 figure expected to surpass 1942.

Mississippi-Henrywell, for the six months ended June 30, 1943, reported a net profit of \$1,625,000, or \$2.81 per common share, compared with \$1,055,900 or \$1.42 per share for the first half of 1942.

Based on earnings results for the year to date, this firm which, with its subsidiaries is turning out a heavy volume of wartime aeronautical components, may be able to report for all of 1943 an increase in net income over the \$2,464,648 or \$4.29 per share reported for 1942. Sales last year set a new record of \$4,732,912.

The company's laboratories are at work on a large variety of new products for the post-war era.

## AAF Glider Pickup

Fine emergency test reported after forced landing in field.

An emergency glider pickup, believed the first of its kind, Army Air Forces, was accomplished recently with a Douglas C-47 cargo plane and a Waco CG-4A glider out of a small farm field north of Dayton, where the glider made a forced landing.

Capt. Norman Hinsel, of the army experimental glider base, Wil-

ington, Ohio, who piloted the pickup plane, said the pickup eliminated the necessity for dismantling the glider and hauling it out on a crash truck, but, more important, it demonstrated under actual field conditions how the pickup system could lift gliders out of areas too small for landing large planes.

## New duPont 'Prop'

Product reported much lighter although able to stand 60-ton stress in flight.

Propellers are in the news again with announcement of a new type Hamilton standard with metal core and hard rubber ferrule, whose proponents lead it for its cooling properties.

The development was declined by E. L. duPont de Nemours and Co., who said the new prop is much lighter, although able to stand a 60-ton stress in flight.

► **Advantages:**—The new modified ferrule, engineers say, permits greater width toward the hub and a greater air flow through the cooling. This is said to be sufficient to allow a transport plane on the ground to ride the motors at cruising speed without danger. Special value was predicted for piston planes.

## Convair Dividend

Directors of Consolidated Value declared 34½ cents on preferred.

Directors of Consolidated Value Aircraft Corp. declared dividends of 34½ cents on preferred stock and 10 cents on common stock, at a meeting at Fort Worth.

C. W. Perella, San Diego, vice-president in charge of manufacturing, was added to the board to fill a vacancy created several months ago by resignation of E. M. Williams, one-time assistant to Board Chairman Tom M. Girdler.

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## For an Air Cargo Hearing

CIVIL AERONAUTICS BOARD OFFICIALS are going on record as highly pleased with the result of the series of pre-hearing conferences on local service which closed last week.

The testimony and exhibits made available an invaluable reference file as a guide for the board's future thinking on the subject.

Some material that was presented will be of little value, of course, but the general average was higher than the sponsors had expected. Several studies alone were worth thousands of dollars to the board, one official said.

The value which the air transport industry placed on the hearings was evident from the large attendance of out-of-town executives at important sessions. The demand for stenographic records is another index.

Considering the general variety and even chaos which prevails in air cargo thinking in general, the huge amount of research on the subject which has been under way secretly for years, and the importance of future developments, it would seem that the board would be justified in holding in the near future a similar series of pre-hearing

conferences on the subject of air freight.

Despite the restricted nature of some military cargo statistics, commercial operations and research have progressed far enough to permit presentation to CAB of a wealth of material on present and potential possibilities of flying cargo.

The cost to the board would be trifling, while the result should be a collection of data which could not be duplicated anywhere else in the world.

The United States leads all other countries in the extent and efficiency of air transport operations, and in the production technique and quality of the transport plane. Its aviation regulatory bodies, its aircraft industry, and its airlines need all accurate material and research on this subject for proper planning now to insure our leadership during the post-war era.

Engineering conferences, such as the impending two-day session of the SAE in Chicago, will command wide interest because of the high caliber of their speakers, but a longer series of air cargo hearings before the CAB appears to be the best and quickest source for the most possible authentic information.

## Congress Should Extend WTS

THE CIVILIAN PILOT TRAINING Act of 1939 will expire July 1, 1944. War Training Service, formerly the Civilian Pilot Training Program, is operating under this law.

Both the House and Senate versions of the pending Les bill contain a section for continuing indefinitely the salient provisions of the 1939 act. Outcome of the Les legislation appears uncertain. Another bill to extend the training act for five years was introduced by Senator McCarran but is stalled.

The Les bill may become bogged down in the controversial hubbub over sections involving commercial air transport. This would peril the war training program of WTS.

Meanwhile, it is urgent that the Civil Aeronautics Administration, which operates WTS, be allowed to plan at the earliest moment for the coming fiscal year.

Congress should realize that WTS is training more than 27,000 men for the Army and Navy at nearly 300 centers using facilities of universities and colleges, local airports and private flight contractors, with more than 7,000 planes.

Congress should pass a special bill extending WTS indefinitely, or at least until the Les bill becomes law.

Otherwise, it should stand ready to take responsibility for hindering this vital phase of our national war effort.

ROBERT H. WOOD

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